# Why are there disjunctive particles in Sinhala & Dravidian relative-correlatives?

Existential particles in non-existential environments

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### Overview

- ① Distribution of  $mu \& \kappa$  particles
- $oxed{2} \kappa$  in Sinhala & Dravidian: relative clauses & beyond
- 3 "ever" free relatives crosslinguistically
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# "conjunctive"/"universal" and "disjunctive"/"existential" particles in select languages

#### Superparticles

- In a number of languages, including Japanese, Sinhala, and Dravidian, we find particles from 2 series playing a wide variety of roles (Szabolcsi 2010, 2015, Slade 2011, Mitrović 2014, amongst others; cf. Reichenbach 1947, Rohrer 1973).
- The  $\mu$ -type (< Japanese mo) appears in universal & conjunctive environments; the  $\kappa$ -type (< Japanese ka) in existential & disjunctive (& interrogative) environments.

	Japanese	Dravidian	Sinhala	Nepali	Hindi	Hungarian
$\mu$ -series	mo	um	t	pani	bhī	is,
						mind
$\kappa$ -series	ka	ō	da (də),	_	_	vagy
			hō (hari)			

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# Examples of $\mu$ environments

	Japanese	Dravidian	Sinhala	Nepali	Hindi	Hungarian
everyone,	dare- <b>mo</b>	ār- <b>um</b>	kauru- <b>t</b>	_	_	mind-en-ki
anyone						
both A&B	A-mo B-mo	A-um B-um	_	A pani B pani	A <b>bhī</b> B <b>bhī</b>	mind A mind B
			P-t Q-t			A is (és) B is
A too,	A-mo	A-um	A-t	A pani	A <b>bh</b> ī	A is
even A						

Table:  $\mu$  elements

# Examples of $\kappa$ environments

	Japanese	Dravidian	Sinhala	Nepali	Hindi	Hungarian
someone	dare- <b>ka</b>	ār- <b>ō</b>	kau- <b>də</b>	_	_	<b>vala</b> -ki
who Vs?	dare-ga V <b>ka</b>	_	V-ekau- <b>də</b>	_	_	_
A or B	A-ka B(-ka)	A- <b>ō</b> B- <b>ō</b>	A- <b>də</b> B- <b>də</b> ,	_	_	(vagy) A vagy B
			A-hari B-hari			

Table:  $\kappa$  elements

### Sinhala da in Classical Sinhala

Usually appears in yes/no questions

(1) To me suta Budun desannā āsūhu da? 2SG-PRN this sermon Buddha preach.PRES.PTCP.NOM hear.PAST.2SG da

"Did you hear the Buddha preaching this sermon?" [Amāvatura 228, Wijemanne 1984: 71]

Sometimes but not always in wh-questions

(2) Dæn paeviji væ kumata kiyam da? now ordained been what.DAT say.PRES.1SG da

"Now that I am a monk, why would I say it?" [Amāvatura 76]

Appears in alternative questions

(3) mā ... nuvaṭahu arabhayā kī dæ nipan da no nipan da?

 $my \dots$  religious mendicant about said things quot born da neg born da?

"Did my predictions regarding the religious mendicant prove correct or did they not?" (12th century, Amāvatura 178) (Wijemanne 1984: 75)

In non-interrogative contexts,  $h\bar{o}$  appears rather than da

(4) yuvaraja-væ siṭiyavun hō . . . rāja-kumāra-varun hō . . . bisōvarun hō

heir-apparent  $har{o}\dots$  princes  $har{o}\dots$  queen  $har{o}$ 

"Either the heir-apparent ... or the princes ... or the queen" (12th c. inscription;

Wickremasinghe et al. 1912–1933: ii.161 $B^{5-7}$ )

### Relative-Correlatives in Classical Sinhala & Dravidian

#### Structure

Relative-correlatives in Classical (& modern literary) Sinhala always involve a "clause-closing" particle. The same is true in (modern) South/South-Central Dravidian (Hock 1988, 1989, 2008). These "clause-closing" particles are da in Sinhala and  $\bar{a}$  in Dravidian.

## Early Sinhala & Dravidian relative-correlatives

#### Classical Sinhala

(5) [ yamak'hu palamu diṭim ]<sub>RC</sub> -da [ ohu marā ...]<sub>CC</sub> [ REL-PRON.MSC.SG.ACC firstly see.1SG ]<sub>RC</sub> -da [ him kill.CONV ...]<sub>CC</sub> "Whoever; I see first, I shall kill him; ..."

(Amāvatura 133, Wijemanne 1984:210)

#### Malayalam

(6) [ārə manassə aṭakkunnuv] -ō [avannə samādhānam kiṭṭunnu] [who mind control.pres]<sub>RC</sub> -ō [he.dat peace obtain.pres]<sub>CC</sub> "Whoever; controls his mind, he; obtains peace." (Asher & Kumari 1997:54)

both  $\kappa$ -series elements: Sinhala da, Malayalam  $\bar{o}$ 

# "Ever" relative-correlatives in other Indo-Aryan languages

#### Hindi

```
(7) [jab bhī dillī jātā hū ] [tab hindī hī [REL.when bhī Delhi go.IMPF.MSC.SG be.1SG.PRES] [then Hindi ЕМРН boltā hū ] speak.IMPF.MSC.SG be.1SG.PRES] "Whenever I go to Delhi, (then) I speak Hindi, of course." (McGregor 1995. 3rd edn.: 92)
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#### Nepali

(8) [jahilesukai usko ghar gae ] pani [uslāī kahile pani [REL.whenever his house go.2PERF-PTCP.3SG] pani [him sometime pani bheṭ hūdaina ] meet be.NEG.PRES.3SG]

"Whenever you go to his house, you can never meet him." (Matthews 1998: 184)

#### both $\mu$ -series elements: Hindi $bh\bar{i}$ , Nepali pani

# "ever" free relatives crosslinguistically

#### *wh*(/rel. pro.)+ $\mu$ form

- English: wh+"ever", e.g. whoever, whatever, wherever, however (\*whyever)
- Italian: wh+"ever", e.g. chiunque "whoever" (Caponigro 2003)
- Czech: wh+ "ever", e.g. cokoliv whatever" (Šimík 2016)
- **Bulgarian**: wh+"also", e.g. kakvoto <u>i</u> "whatever" (Izvorski 2000)
- **Dutch**: wh+"then"+"also", e.g. wie dan <u>ook</u> "whoever" (Rullmann 1996)
- Indo-Aryan (Hindi, Nepali,...): rel. pron.+"also/even", e.g. Hindi jo <u>bhī</u> "whoever"
- **Japanese**: wh+"even", e.g. dare-<u>demo</u> "whoever" (Nishigauchi 1986)

#### wh+modal marker

- Greek, e.g. opjos-dhipote "whoever" (Giannakidou 1998, 2001)
- Spanish qual-quiera & Catalan qual-sevol "whoever" (Quer 1998)

#### other strategies

- Modern Hebrew: wh + "neg", e.g. ma še-lo "whatever", lit. 'what that-NEG' (Eilam 2009)
- Turkish: wh + cond. marker on verb, e.g. kim kazan-ır-sa, lit. "who win-AOR-COND" (latridou 2013)

#### Korean

- Korean is similar in using a "disjunctive" element combined with a *wh*-word with an FC type interpretation, but not as relatives (and also compatible with a general universal reading): (Gill et al. 2006)
  - (9) Nwukwu-na kimchi-lul cohahan-ta who-DISJ kimchi.ACC like.DECL "Everyone/anyone likes kimchi."
- (Gill et al. suggest that for feature-valuing reasons, na is always accompanying by a phonetically-silent Dist distributive operator; and in their analysis the  $\mu$ -type interpretation actually is contributed by Dist)

### Hungarian

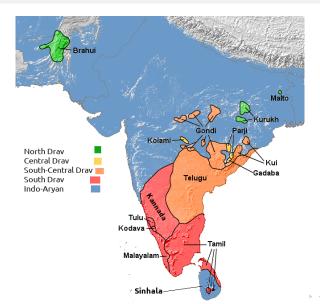
- (10) [ Akit szeret Mari ], azt meghívta a buliba. [ who(ever) loves Mari ], pro invited to party "Who(ever) Mari loves, she invited to the party."
- (11) János vehet [ amit **csak** akar ]
  John buy [ what **only** wants ]

  "John can buy whatever he wants."

## (True) relative-correlatives in (early) Sinhala & Dravidian

- in Classical & modern literary Sinhala, true relative-correlatives (as opposed to prenominal modifying relative clauses), involve a relative clause formed with a rel. pro. and a "clause-closing" (Hock) particle, of the  $\kappa(!)$ -type: da
- similarly in South and South-Central Dravidian languages, true relative-correlatives involve a relative clause formed with a *wh*-word and a "clause-closing" particle of the  $\kappa$ -type:  $\bar{o}$

# South Asia language distribution [Drav. & Sinhala]



## Conforming Dravidian examples

- (12) [ unkaļ-ukku evvaļavu vēṇṭ-um- ]-ō avvaļuvu nān taru-kiṛ-ēn [ you.PL.DAT how\_much want.FUT.3NEU.SG ]-ō that\_much I give.PRES.1SG "However much you want, that much I'll give you." [Tamil] (Krishnamurti 2003: 448)
- (13) [ ēt-oruvan drōham ceyy-unnuv- ]-ō avan pāpi ākunnu [ which-one.MSC.SG evil.ACC do.PRES ]-ō he sinner become.PRES "Whoever does evil, he becomes a sinner." [Malayalam] (Krishnamurti 2003: 448)
- (14) [ brāhmanar āga bēk(u) anta yāruyārige āśe ide.y ]-ō [ brahmin.nom become.inf want say.cnj who-who.dat desire.nom be.pres.3sg.neu ]-ō avarella brāhmanaru they.nom-all brahmin.pl.nom "Whoever has the desire to become a brahmin, they all are brahmins." [Kannada] (Steever 1998)
- (15) [ēdi kāwāl(i)- ]-ō adi paṭṭu-ku-pō
   [what be-wanted-]-ō that take-REFL-go.IMP.2SG
   "Take away whatever you want." [Telugu] (Krishnamurti 2003: 448)
- (16) [ mā kīdu inika manad ]-ō dani pēru veRtu [ our hands what is ]-ō that name tell.IMPV "Tell us the name of whatever is in our hands." [Konda] (Krishnamurti & Benham 1998)



# Analysis of wh(/rel. pro.)+ $\mu$ forms

- Dayal (1995): Hindi  $bh\bar{\iota}$  (& English -ever) are polarity forms that induce widening (and are licensed if result in strengthening)
- Dayal (1997): bhī/ever add a modal dimension, introducing i(dentity)-alternatives

# Dayal's (1997) analysis

#### whatever<sub>i</sub> [IP...t<sub>i</sub>...] denotes at w =

- ①  $\lambda Q \ \forall i$ -alternatives  $\in f(w)(s) [Q(i)(\iota x[P(i)(x)]]$  where P is the property derived by abstracting over  $x_i$  in the IP denotation.
- ② f(w)(s) = w':  $\forall p[s \text{ believes } p(w) \rightarrow p(w') \text{ for a world of evaluation } w \text{ and speaker } s, f(w)(s) \text{ is the set of worlds in which the speaker's beliefs about } w \text{ hold.}$
- a world  $w' \in f(w)(s)$  is an i-alternative iff there exists some  $w'' \in f(w)(s)$ , such that  $\iota x[P(w')(x)] \neq \iota x[P(w'')(x)]$

## Interaction with aspect (Dayal 1997)

#### Identity

- "Mary is cooking something. Whatever she is cooking uses onions."
- $\bigcirc$   $\forall$  i-alt  $\in$  f(w)(s)[uses-onions(i)(\(\pi\x(cooking(i)(x)(m)])]
- 3 i-alt<sub>1</sub>: ix[cooking(i)(x)(m)] = ratatouille
  - $i-alt_2 : \iota x[cooking(i)(x)(m)] = daal$
  - $i-alt_3 : \iota x[cooking(i)(x)(m)] = goulash$

...

#### Plain FR

- "What Mary is cooking uses onions."
- uses-onions(w)(\(\infty\)[cooking(w)(x)(m)])

#### FC

- Whatever Mary cooks uses onions."
- $\exists \forall w[C(w)][\forall i-alt \in f(w)(s)[uses-onions(i)(\iota x[cooking(i)(x)(m)])]]$

Sinhala relative-correlatives & unexpected particles

# Aspect in Hindi and *bhī* (Dayal 1995: 193-4)

### Identity

(17) jo bhī laṛkī **sundar hai** ravi usse
REL.PRO *bhī* girl **pretty be.3RD.SG.PRES** Ravi her.INSTR
milnā cāhtā hai
meet.INF want.IMPF.MASC.SG be.3RD.SG.PRES
"Ravi wants to meet the girl who is beautiful (whoever she may be)."

#### FC

(18) jo bhī laṛkī sundar hotī hai ravi REL.PRO bhī girl pretty be.IMPF.FEM.SG be.3RD.SG.PRES Ravi usse milnā cāhtā hai her.INSTR meet.INF want.IMPF.MASC.SG be.3RD.SG.PRES "Ravi wants to meet any girl who is beautiful."

### Sinhala da in modern Sinhala

In modern literary Sinhala, alongside of disjunctive uses of  $h\bar{o}$  as in (19), we also find a special epistemic indefinite use, as in (20)

- (19) rahul hō amin hō gamaṭa giyāya
   Rahul hō Amin hō village.DAT go.PAST.3SG
   'Rahul or Amin went to the village.' [Modern Literary Sinhala]
- (20) kaluvarē kaurun hō mā ælluvēya darkness-in who hō I.ACC touch.PAST.MSC.3SG 'Someone (unknown) touched me in the darkness.' [Modern Literary Sinhala]

# Extension of *da* to indefinites in modern colloquial Sinhala

In modern colloquial Sinhala, both hari (earlier  $h\bar{o}$ ) and  $d\partial$  (earlier da) can form epistemic indefinites

- (21) a. Kau **də** mese uda natanava. Who **də** table on dance.pres.
  - b. Kauru hari mese uda natanava. Who *hari* table on dance.pres.
    - "Someone is dancing on the table."
- The difference between (21-a) and (21-b): either intensional vs extensional (Slade 2011) or difference in identification method [name/def. descript. vs deictic/visual] (Slade 2015)
- Perhaps developed epistemic presuppositional component earlier on, and it shows up in the relative-correlative formation, utilising the anti-singleton presupposition similar to Alonso-Ovalle & Menéndez-Benito (2010) and the choice-function variable analysis of Q-particles from Slade (2011).

Sinhala relative-correlatives & unexpected particles

# Semantics of $da/\bar{o}$ : maximality

 Treat relative pronouns (& wh-words appear in that function) as following Jacobson (1995), Rullmann (1995) as involving a maximality operator max (Link 1983)

#### Relative pronoun interpretation

- (22) a. [who Sita sees]
  - b.  $max(\lambda x[see(s, x)])$
  - c.  $\iota[\sec(s,x) \land \forall x'[\sec(s,x') \to x' < x]]$
- satisfied where the set denoted by the relative pronoun includes sum, and crucially a least upper bound, or (trivially) where the set is a singleton set

# Semantics of $da/\bar{o}$ : choice-functions & anti-singleton presupposition

da/ō

treat  $da/\bar{o}$  as denoting a variable over choice-functions

anti-singleton constraint

Assuming that da bears the anti-singleton presupposition found in epistemic indefinites, the Q-particle component is satisfied when it applies to a non-singleton set [refined below]

anti-singleton constraint refined

$$|\{x: x = y(w): y \in P(w): w \in W_{sb}\}| > 1$$

The set of extensions in worlds consistent with speaker's beliefs of the members of *P* is greater than one.

# Satisfying both anti-singleton presupposition & max: FC

- assume max applies first
- If anti-singleton presupposition is to be satisfied, must be multiple individual(/individual concepts) for which the proposition is satisfied (w.r.t. speaker's knowledge)
- If max is satisfied, there must be a maximal sum, or else a single atom
- Thus, one way both can be satisfied is where there is a maximal sum ("plural" interpretation of relative pronoun), assuming that maximal sums count as non-singletons. Thus derives the FC "universal" reading

# Satisfying both anti-singleton presupposition & max: identity

- assume max applies first
- assume the case in which the relative pronoun points to a single individual;
   this trivially satisfies max
- but this will not satisfy the anti-singleton presupposition of the Q-particle, UNLESS i(dentity)-alternatives are introduced at this point. Thus derives the identity reading

# FC/Universal reading

#### Sinhala FC

kered l da ovun hæma denā (23) [ Yam kenek tā kīvā [ REL.PRO person.INDEF.NOM your bidding do.CAUS.3PL.PRES ] da they.OBL all people genæ ...rājya sīmāven pitat væ vā take.conv ...kingdom border outside? go.impv "Go out of the kingdom after taking all of those who obey you." (Amāvatura 64, Wijemanne 1984: 210)

$$\mathsf{IP}_1 \colon \exists f \in \mathit{CH} \colon \lambda t \lambda \mathit{P.P}(t)(\mathit{take'})(\mathit{f}(\{g+c+j\}))$$
 
$$\mathsf{CP} \colon \mathit{f}(\mathit{max}(\{g+c+j,g+c,g+j,j+c\dots\})) \quad \mathsf{IP}_2 \colon \lambda \mathit{P.P}(t)(\mathit{take'})$$

# Identity reading

#### Sinhala FC

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 \begin{aligned} & \text{IP}_1 \colon \exists f \in \mathit{CH} : \lambda t \lambda P.P(t)(take')(f(\{x : I \text{ see } x \text{ first}\})) \\ & \text{CP:} f(max(\{x : I \text{ see } x \text{ first}\})) & \text{IP}_2 \colon \lambda P.P(t)(take') \\ & \text{presupposes:} \ |\{x : x = y(w) : y \in P(w) : w \in W_{sb}\}| > 1, \text{ for } P = x : I \text{ see } x \text{ first}\} \\ & \text{(I.e. implicates that speaker doesn't know/care about the extension "the person I see first")} \end{aligned}
```

# (Apparently) Non-conforming Dravidian examples

- (25) [ yāva huduga nimm-a kai-kuluk-id-an- ]-ō ā huduga nann-a geleya [ which boy you.gen hand-shake.past.am.sg ]-ō that boy I.gen friend "The boy who you shook hands with is my friend." [Kannada] (Krishnamurti 2003: 448)
- (26) [ [ yāvud-annu huḍukalu ] nīvu iṣṭu kaṣṭa paṭṭir ]-ō ā pustaka [ [ which-one.Acc seek.INF ] you.Nom such difficulty befall.past.2pl ]-ō that book ill-ē ide here-just be.pres.3sg.NeU

  "The book, looking for which gave you such trouble, is right here." [Kannada] (Steever 1998: 152)

#### resolution?

But perhaps (26) reflects speaker's indifference about identity of book, and perhaps (25) is referencing addressee's ignorance (id of boy) rather than speaker's.

# Examples with clear plurals

#### Dravidian

(27) [ brāhmanar āga bēk(u) anta yāruyārige āśe ide.y ]-ō [ brahmin.Nom become.Inf want say.cnj who-who.dat desire.Nom be.pres.3sg.neu ]-ō avarella brāhmanaru they.nom-all brahmin.pl.nom

"Whoever has the desire to become a brahmin, they all are brahmins." [Kannada] (Steever 1998) [repeated from (14) above]

#### (Classical) Sinhala

- - result (of that giving) is great." (Amāvatura 79, Wijemanne 1984: 210)
- (29) [Yam kenek tā kīvā kered ] da ovun hæma denā [REL.PRO person.INDEF.NOM your bidding do.CAUS.3PL.PRES] da they.OBL all people genæ ...rājya sīmāyen piṭat væ yā take.CONV ...kingdom border outside ? go.IMPV

"Go out of the kingdom after taking all of those who obey you." (Amāvatura 64, Ibid.)

# Other Classical Sinhala examples

multiple relative pronouns correlating with multiple correlative pronouns

```
(30) [Yamek yamak'hu gætte] da he
[REL.PRON.INDEF.NOM REL.PRON.INDEF.GEN taken] da DEM.PRON.NOM
ovhaṭa mæ ve vayi
DEM.PRON.DAT

"May the respective owner of each item have it back." [Amāvatura 301]
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#### With conditional nam rather than Q-particle da

(31) [ yam gihi minisek ovun-ge vāda maňḍanaṭa nisi [ REL-PRON householder person.INDEF their talks trample.INF.DAT suitable vī ]<sub>RC</sub> nam [ ohaṭa pādaparicārikā veti ]<sub>CC</sub> be.PAST.3SG ]<sub>RC</sub> COND.PTCP [ him.MASC.DAT wed.PRES.3SG ]<sub>RC</sub> "They become the wives of any layman who may be able to refute their arguments." (Amāvatura 150, cited from Wijemanne 1984: 212) [Classical Sinhala]

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### Classical Sinhala - multiple clauses in relative

With neither *da* nor *nam* in the case of multiple clauses in relative (apparently optional with multiple clauses)

(32) **yam se** sulanga hamana, kalæ atu sæleyi, diya sæleyi, **REL.PRO** the wind blows, the branches shake, the water shakes, ehi sit næti, **e seyin** mæ kāya daṇḍa du acittaka veyi they are mindless, **in that way** physical action is mindless "When the wind blows, the branches shake, the water shakes; they are mindless; in the same manner, physical action too is mindless." (*Amāvatura* 51)

# Old Sinhala examples

Relative-correlatives in Old Sinhala

True relative-correlatives in Old Sinhala are distinctly rare (the prenominal modifying type is vastly preferred); I have found only 4 examples.

Only 1 uses any sort of closing particle (the conditional *nam* rather than *da*)

]<sub>RC</sub> [ pahani-i (33)[ Pere hæjin vam nam ma [ formerly **rel-pron** know.past **cond-ptc** 1sg-prn.acc/gen ]<sub>RC</sub> [ satisfy.past alalæ  $_{\rm RC}$  [ e yat me et nam mā **COND-PTC** love.LOC 1SG-PRN.GEN RC 3SG.ACC go.COND this come.PAST.3PL CC "She who was known (to me) earlier, who was satisfied in her love of me, when I go [Old Sinhala] to her, these (people) are coming (from her)." [Sigiri Graffiti 251]

[it also happens to involve multiple relatives correlated to a single correlative]

# Old Sinhala examples (cont.)

The other 3 examples use yam but no 'closing' particle, e.g.:

(34)Sihigirī angnak banavat me yannā var sera Sihigiri.LOC woman.INDEF speak.COND.CAUS this going occasion thief desekæ se ho mā bæli yam like 3SG.FEM-PRN REL-PRON direction.LOC.INDEF 1SG-PRN.GEN look.PAST tomo. agan me niyā. REFLX-PRN.FEM. women this manner "When I, while passing by, speak to a lady of Sihigiri, she herself, roguishly, looked in the direction (where) I (was). Women are like this." [Sigiri Graffiti [Old Sinhala] 305]

### Early Dravidian relative-correlatives

In early South Dravidian, the particle  $\bar{o}$  is not always in evidence in relative-correlatives

- (35) [ e-vari nall-avar āṭavar ]<sub>RC</sub> [ a-vari nall-ai ]<sub>CC</sub> [ which-place good.MASC.3PL men.MASC.3PL ]<sub>RC</sub> [ that-place good.2SG ]<sub>CC</sub> "At whichever place men are good, at that place you are good." (cited from Lehmann 1998: 94) [Old Tamil]
- (36) [ yātontu mahārājaniyōgam ]<sub>RC</sub> [ atu a-vaṇṇam ]<sub>CC</sub> [ what.NEUT maharaja-order ]<sub>RC</sub> [ that.NEUT in-that-manner ]<sub>CC</sub> "Whatever is the king's order, (let) that (be done) in that manner." (cited from Pillai 1973: 165) [Old Malayalam]

#### **BUT**

(37) e-nāļ-ō ... nī celvatu a-nāļ koṇṭū irakkum which-day-ō ... you go.nonpast.nom that-day from die.nonpast.3sg.nom ivaļ ... uyir-ē she ... life

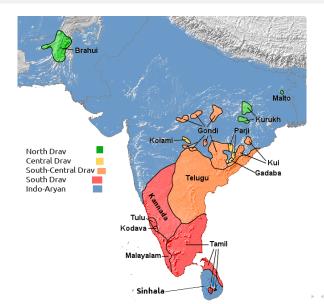
"On whichever day you will go, from that day (onwards) her life will die." (*Kalittokai* 5.18-19, cited from Thomas Lehmann, p.c.) [late Old Tamil (500-700 A.D.)]

### More on Dravidian relative-correlatives

Absence of  $\bar{o}$  in relative-correlatives

Also lacking in post-relative clause particles are Old Kannada (Hock 2008), and (all?) modern "northern" Dravidian languages (Pengo, Kuvi, Kolami, Parji, Kurukh) (Hock 1988, 1989, 2008).

# South Asia language distribution [Drav. & Sinhala]



# Non-varying relative-correlatives?

#### Question:

Why would relative-correlatives would always involve variation in the first place?

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Possible answer, part i (answer to: "how could this be the case?"):
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(Sigiri Graffiti no. 308; Paranavitana 1956)

For "regular" relative clauses, Sinhala (& Dravidian) possess a prenominal modifying participial construction, very usual as far back as the 8th-c. A.D.:

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[ [ guruwərəyek wenə ] mahattəya ] huňgak dannəwa.
[ [ teacher.INDEF.NOM become.PRES.ADJ ] man.DEF ] much know.PRES

"The man who is becoming a teacher knows a lot."

(cited from Gair 1995[1998]: 245) [Colloquial Sinhala]
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```
(39) Nægæ mehi [[ma senehī] himabiyanæṭa]
rise.conv this.loc [[ISG-PRN.GEN love.PAST.PTCP] lady.dat.pl]
tupa no daha
2PL-PRN.GEN NEG show anger.IMPV
"Having ascended here, do not show anger towards the ladies who have been loved
```

"Having ascended here, do not show anger towards the ladies who have been love by me." (Lit., "... towards the loved-by-me ladies")

# Prenominal modifying participial relatives in Dravidian

```
[PP NP P Adip nērru inkē va-nt-a ] NP anta paiyan ] ]-ai ] nān
(40)
       [PP][NP][IP][AdiP] yesterday here come-PAST-ADJ [NP] that boy [PP][NP] [INOM
       inru pār-tt-ēn
       today see-PAST-1SG
       "today I saw the boy who came here yesterday" (Krishnamurti 2003: 444)
                                                                               [Tamil]
       pūcca kitakunna cākə
(41)
             lie.pres.adj sack
        "the sack on which the cat lies ..." (Krishnamurti 2003: 445)
                                                                         [Malayalam]
       hinde gōdaun iruva
(42)
                                          angadi
       behind warehouse be.nonpast.adj shop
        "the shop which has a warehouse at the back ..." (Ibid.)
                                                                           [Kannada]
(43)
       puli
                 camp-in-a
                              manisi
       tiger.nom kill-past-adj man
        "the person whom the tiger killed ..." (Ibid.)
                                                                              [Telugu]
```

# Comparison with Nepali

#### Also the case in Nepali

Especially in the spoken language, Nepali prefers the prenominal modifying participial type of relative:

- (44) a. hijo āeko mānche ...
  yesterday come.perf.ptcp man ...
  "The man who came yesterday..."
  b. bholī āune mānche ...
  tomorrow come.INFN.ptcp man ...
  - "The man who's coming tomorrow ..."
- The 'true' relative-correlatives in Nepali are used mostly in formal writing. And in speech the relative pronouns most frequently appear as 'ever' FRs (even when they don't include the 'ever'-element, i.e. the additive *pani*)
- (this is not true, however, of the corresponding Hindi relative-correlatives, which are frequent in speech as well)

# Underspecification of regular relatives

#### Hungarian

```
(45) János vehet [ amit akar ]
J buy.pot.3sg.indef [ what.acc wants ]

"János can buy what(ever) he wants." (Lipták 2012: 6n5)
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### Underspecification of "plain" relatives in English

(46) I'm free, to choose whom I please, any old time.I'm free, to please who I choose, any old time.("I'm free", M. Jagger & K. Richards 1965, from Horn 2000)

### Summary

- $\mu$ -type "ever" relatives involve the  $\mu$ -element introducing i-alternatives and providing universal quantificational force over these (as per Dayal 1997)
- $\bullet$   $\kappa$ -type "ever" relatives involve the  $\kappa$ -element contributing an anti-singleton presupposition, which can be satisfied either by a plural individual (FC-like) or the situation where the speaker has uncertainty/indifference regarding the extensions of the relevant individual concept

# Remaining issues

- Provide a more compositional account for  $\textit{wh-+}\mu\text{-type}$  relatives
  - ullet reformulation which captures the fact that these elements are  $\mu$  elements, something more generalised
- further probe into differences between Hindi & Nepali (same  $\mu$ -type element, but different syntax)
- further investigation into whether there always a variation/alternative component in Classical/literary Sinhala and South Dravidian relative-correlative?

#### References I

Alonso-Ovalle, Luis. 2006. Disjunction in alternative semantics. Amherst, MA: University of Massachusetts, Amherst dissertation.

Alonso-Ovalle, Luis & Paula Menéndez-Benito. 2003. Some epistemic indefinites. In M. Kadowaki & S. Kawahara (eds.), Proceedings of the North East Linguistic Society, 33, 1–21. Amherst, MA: GLSA.

Alonso-Ovalle, Luis & Paula Menéndez-Benito. 2010. Modal indefinites. Natural Language Semantics 18. 1-31.

Alonso-Ovalle, Luis & Junko Shimoyama. 2013. Expressing ignorance in the nominal domain: Japanese Wh-ka. WCCFL 31, Arizona State University.

Asher, Ronald E. & T.C. Kumari. 1997. Malayalam. London: Routledge.

Bhatt, Rajesh & Anikó Lipták. 2009. Matching effects in the temporal and locative domains. In Anikó Lipták (ed.), Correlatives cross-linguistically, 343–372. Amsterdam: John Benjamin.

Bittner, Maria. 2001. Topical referents for individuals and possibilities. In R. Hastings, B. Jackson & Z. Zvolensky (eds.), Proceedings of SALT XI, 36–55. Ithaca, NY: CLC, Cornell University.

Böhtlingk, Otto & Rudolph Roth (eds.). 1855–1875. Sanskrit-Wörterbuch. St. Petersburg: Kaiserlichen Akademie der Wissenschaften.

Brasoveanu, Adrian. 2012. Correlatives. Language and Linguistics Compass 6(1). 1-20.

Caponigro, Ivano. 2003. Free not to ask: On the semantics of free relatives and wh-words cross-linguistically. Los Angeles, CA: University of California Los Angeles dissertation.

Dayal, Veneeta. 1995. Quantification in correlatives. In Elke Bach, Eloise Jelinek, Angelika Kratzer & Barbara H. Partee (eds.), Quantification in natural languages, 179–205. Dordrecht: Kluwer.

Dayal, Veneeta. 1996. Locality in wh quantification: Questions and relative clauses in Hindi. Dordrecht: Kluwer.

Dayal, Veneeta. 1997. Free relatives and ever. In A. Lawson (ed.), Proceedings from Semantics and Linguistic Theory (SALT) 7, 99–116. Ithaca, NY: CLC Publications, Cornell University.

Eilam, Aviad. 2009. The crosslinguistic realization of -ever: Evidence from modern Hebrew. Ms., University of Pennsylvania. http://semanticsarchive.net/Archive/mQ5ZjY3N.

Fairbanks, Gordon H., James W. Gair & M.W.S. De Silva. 1968. Colloquial Sinhalese (Sinhala). Ithaca, NY: South Asia Program and Department of Modern Languages and Linguistics, Cornell University.

#### References II

- Gair, James W. 1986 [1998]. Sinhala focused sentences: Naturalization of a calque. In Bhadriraju Krishnamurti, Colin P. Masica & Anjani Kumar Sinha (eds.), South Asian languages: Structure, convergence and diglossia, 147–164. Delhi: Motilal Banarsidass. [Reprinted with additional notes in Gair 1998:155–169].
- Gair, James W. 1992. AGR, INFL, Case and Sinhala diglossia, or Can linguistic theory find a home in variety. In Braj Kachru, Edward C. Dimock & Bhadriraju Krishnamurti (eds.), Dimensions of South Asia as a sociolinguistic area: Papers in memory of Gerald B. Kelley, 179–197. Delhi: Oxford India Book House.
- Gair, James W. 1995[1998]. Syntactic theory, AGR, and Sinhala diglossia. Published in Gair 1998:237–267.
- Gair, James W. 1998. Studies in South Asian linguistics: Sinhala and other South Asian languages. New York: Oxford University Press.
- Gair, James W. & W.S. Karunatilaka. 1974. Literary Sinhala. Ithaca, NY: South Asia Program and Department of Modern Languages and Linguistics, Cornell University.
- Giannakidou, Anastasia. 1998. Polarity sensitivity as (non)veridical dependency. Amsterdam: John Benjamins.
- Giannakidou, Anastasia. 2001. The meaning of FC. Linguistics and Philosophy 24. 659-735.
- Gill, Kook-Hee, Steve Harlow & George Tsolas. 2006. Disjunction and indeterminate-based quantification in Korean. Ms., University of York.
- Hamblin, Charles Leonard. 1973. Questions in Montague English. Foundations of Language 10(1). 41-53.
- Hock, Hans Henrich. 1988. Review article: Finiteness in Dravidian. Studies in the Linguistic Sciences 18(2). 211-231.
- Hock, Hans Henrich. 1989. Review of Steever (1988): The serial verb formation in the Dravidian languages. Language 65. 398-405.
- Hock, Hans Henrich. 2008. Dravidian syntactic typology: A reply to Steever. In Rajendra Singh (ed.), Annual Review of South Asian Languages and Linguistics. 164–198. Berlin: Mouton de Gruyter.
- Horn, Laurence R. 2000. Any and (-)ever: free choice and free relatives. In Proceedings of the 15th Annual Conference of the Israeli Association for
- Theoretical Linguistics, 71–111.

  Jatridou. Sabine. 2013. Looking for free relatives in Turkish (and the unexpected places this leads to). In Umut Özee (ed.), Proceedings of WAFL 8.
- Cambridge, MA: MITWPL.

  Izvorski, Roumyana. 2000. Free adjunct free relatives. In Billerey & Lillehaugen (ed.), WCCFL 19 proceedings, 232–245. Somerville, MA: Cascadilla Press

#### References III

Jacobson, Pauline. 1995. On the quantificational force of english free relatives. In Emmon Bach, Eloise Jelinek, Angelika Kratzer & Barbara H. Partee (eds.), Quantification in natural language, 451–486. Dordrecht: Springer.

Jayaseelan, Karattuparambil A. 2008. Question particles and disjunction. Ms., Hyderabad, English and Foreign Languages University. http://ling.auf.net/lingBuzz/ooo644.

Jayaseelan, Karattuparambil A. 2016. Decomposing coordination: The two operators of coordination. Linguistic Analysis 40(3-4). 237-253.

Kratzer, Angelika & Junko Shimoyama. 2002. Indeterminate phrases: the view from Japanese. In Y. Otsu (ed.), The Proceedings of the Third Tokyo Conference on Psycholinguistics, 1–25. Tokyo: Hituzi Syobo.

Krishnamurti, Bhadriraju. 2003. The Dravidian languages. Cambridge: Cambridge University Press.

Krishnamurti, Bhadriraju & Brett A. Benham. 1998. Konda. In Sanford B. Steever (ed.), The Dravidian languages, 241-269. London: Routledge.

Lehmann, Thomas. 1994. Grammatik des Alttamil unter besonder Berück-sichtigung der Cańkam-texte des Dichters Kapilar. Stuttgart: Steiner Verlag.

Lehmann, Thomas. 1998. Old Tamil. In Sanford B. Steever (ed.), The Dravidian languages, 75-99. London: Routledge.

Link, Godehard. 1983. The logical analysis of plurals and mass terms. In Rainer Bäuerle, Christoph Schwarze & Arnim von Stechow (eds.), Meaning, use and interpretation of language, Berlin: Walter de Gruyter.

Lipták, Anikó. 2009. The landscape of correlatives: An empirical and analytic survey. In Anikó Lipták (ed.), Correlatives cross-linguistically, 1-46. Amsterdam: John Benjamin.

Lipták, Anikó. 2012. Correlative topicalization. Acta Linguistica Hungarica 59(3). 245-302.

Matthews, David. 1998. A course in Nepali. London: Curzon.

McGregor, R.S. 1995. 3rd edn. *Outline of Hindi grammar*. New Delhi: Oxford University Press.

Menéndez-Benito, Paula. 2010. On universal free choice items. Natural Language Semantics 18(1). 33-64.

Mitrović, Moreno. 2014. Morphosyntactic atoms of propositional logic: a philo-logical programme. Cambridge: University of Cambridge dissertation.

Nishigauchi, Taisuke. 1986. Quantification in syntax. Amherst, MA: University of Massachusetts, Amherst dissertation.



#### References IV

Paranavitana, Senarat. 1956. Sigiri graffiti, Sinhalese verses of the eighth, ninth and tenth centuries. London: Oxford University Press.

Pillai, P.V. 1973. Early Malayalam prose: A study. Trivandrum, Kerala: University of Kerala.

Quer, Josep. 1998. Mood at the interface. Utrecht: University of Utrecht dissertation.

Reichenbach, Hans. 1947. Elements of symbolic logic. New York: Macmillan.

Rohrer, Christian. 1973. On the relation between disjunction and existential quantification. In Maurice Gross, Morris Halle & Marcel-Paul Schützenberger (eds.), The formal analysis of natural languages: Proceedings of the First International Conference, 224–232. The Hague: Mouton.

Rullmann, Hotze. 1995. Maximality in the semantics of wh-constructions. Amherst, MA: University of Massachusetts at Amherst dissertation.

Rullmann, Hotze. 1996. Two types of negative polarity items. In Proceedings of NELS 26, 335-350.

Šimík, Radek. 2016. On the semantics of Czech free relatives. In Markéta Ziková & Pavel Caha (eds.), Linguistica brunensia 64/1: Festschrift for Petr Karlík, 109–129. Brno: Masaryk University. http://hdl.handle.net/11222.digilib/135453.

Slade, Benjamin. 2011. Formal and philological inquiries into the nature of interrogatives, indefinites, disjunction, and focus in Sinhala and other languages. Urbana: University of Illinois dissertation.

Slade, Benjamin. 2013. Question particles and relative clauses in the history of Sinhala, with comparison to early and modern Dravidian. In Shu-Fen Chen & Benjamin Slade (eds.), Grammatica et verba/Clamor and verve: Studies in South Asian, historical, and Indo-European linguistics in honor of Hans Henrich Hock on the occasion of his seventy-fifth birthday, 245–268. Ann Arbor, MI: Beech Stave Press.

Slade, Benjamin. 2015. Sinhala epistemic indefinites with a certain je ne sais quoi. In Luis Alonso-Ovalle & Paula Menéndez-Benito (eds.), Epistemic indefinites: Exploring modality beyond the verbal domain, 82-99. Oxford: Oxford University Press.

Srivastav, Veneeta. 1991. The syntax and semantics of correlatives. Natural Language and Linguistic Theory 9. 637-686.

Steever, Sanford B. 1998. Kannada. In Sanford B. Steever (ed.), The Dravidian languages, 129-157. London: Routledge.

Szabolcsi, Anna. 2010. Quantification. Cambridge: Cambridge University Press.

Szabolcsi, Anna. 2015. What do quantifier particles do? Linguistics and Philosophy 38. 159-204.

#### References V

- Turner, Ralph Lilley. 1931. A comparative and etymological dictionary of the Nepali language. London: Routledge and Kegan Paul, Ltd. (Reprinted 1980. New Delhi: Allied Publishers, Ltd.).
- Turner, Ralph Lilley. 1962–1966. A comparative dictionary of Indo-Aryan languages. London: Oxford University Press. [Reprinted, Delhi: Motilal Banarsidass, 1999].
- Wickremasinghe, Don Martino De Zilva, H.W. Codrington & Senarat Paranavitana (eds.). 1912–1933. Epigraphia Zeylanica: being lithic and other inscriptions of Ceylon. London: H. Frowde for the Govt. of Ceylon.
- Wijemanne, Pivaseeli, 1984. Amāvatura, a syntactic study. Colombo: Ministry of Higher Education.